

Application No. 09/724,007

2. The mandrel of claim 1 wherein the mandrel comprises three ridges connected by three scallops to form three contoured surfaces.

3. The mandrel of claim 1 wherein the mandrel edge has a radius of curvature of no more than about 0.25 millimeters.

4. The mandrel of claim 1 wherein the mandrel edge has a radius of curvature of no more than about 0.15 millimeters.

5. The mandrel of claim 1 wherein the angle between the top surface and the contoured surfaces is no larger than about 135 degrees.

6. The mandrel of claim 1 wherein the angle between the top surface and the contoured surfaces is no larger than about 90 degrees.

7. The mandrel of claim 1 wherein the top surface of the mandrel is flat.

8. The mandrel of claim 1 wherein the top surface of the mandrel has flat portions and curved portions.

9. The mandrel of claim 1 wherein the top surface of the mandrel has flat portions adjacent the edge and a protruding portion away from the edge.

10. The mandrel of claim 1 wherein the contoured surfaces are on an outside surface of the mandrel.

11. The mandrel of claim 1 wherein the contoured surfaces are on an interior surface of the mandrel.

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29. A mandrel comprising an outer surface having a plurality of ridges and contoured surfaces extending between the ridges corresponding to polymer leaflets in a closed configuration, wherein contoured surfaces corresponding to the leaflets meet contoured surfaces of adjacent leaflets at a sharp edge.

✓ 30. (New) The mandrel of claim 1 wherein the top surface of the mandrel is convex.

✓ 31. (New) The mandrel of claim 1 wherein the top surface of the mandrel is concave.

✓ 32. (New) The mandrel of claim 1 comprising a groove parallel to the edge of the top surface.

✓ 33. (New) The mandrel of claim 32 wherein the groove has a depth from about 0.01 millimeter to about 1 millimeter.

✓ 34. (New) The mandrel of claim 1 wherein the mandrel edge has a radius of curvature of no more than about 0.1 millimeter.

✓ 35. (New) The mandrel of claim 1 comprising a polymer on the contoured surfaces.

✓ 36. (New) The mandrel of claim 29 wherein the sharp edge has a radius of curvature of no more than about 0.25 millimeter.

✓ 37. (New) The mandrel of claim 29 comprising a polymer on the contoured surfaces.